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㊹発明の名称　耐熱性紙容器の製造方法

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㊻参考文献　実開　昭58－7900（JP，U）　特公　昭53－43209（JP，B2）
特公　昭57－3492（JP，B2）　特公　昭57－41890（JP，B2）

1

㊼特許請求の範囲

1　紙基質と紙基質の両面に施された塗料被膜とから成る積層材料を加熱された金型でトレー形状にプレス成形することからなる耐熱性紙容器の製造方法において、走査型熱量計で測定した硬化後のガラス転移点が90℃以上130℃以下である熱硬化型塗料中に隠蔽顔料を配合して、隠蔽顔料当りの熱硬化型樹脂の重量比（R_p）が下記式

$$R_p = k \cdot O_A \cdot d_R$$

式中、O_Aは隠蔽顔料の吸油量（ml／100g）であり、d_Rは樹脂の密度（g／ml）を表わし、kは0.005乃至0.2の数である、

を満足する範囲にある塗布液を調製し；

この塗布液を紙基質の両面に塗布し；

形成される被覆を硬化させて、20℃、65%RHで測定した縦方向に1.5%以上の伸び、横方向に4.5%以上の伸びを有する積層材料を製造し；50℃乃至180℃に加熱された金型にこの積層材料を供給して、プレス成形を行うことを特徴とする耐熱性紙容器の製造方法。

2　熱硬化型塗料がエポキシーアクリル系、又はエポキシービニル系塗料である特許請求の範囲第1項記載の耐熱性紙容器の製造方法。

2

発明の詳細な説明

（産業上の利用分野）

本発明は、耐熱性容器の製造方法に関するもので、より詳細には電子レンジ、電子オーブン、オーブントースターで、内容品を加熱、調理できる耐熱性紙容器の製造方法に関する。

（従来の技術）

食品等の内容物を手軽に充填し得る容器として、トレー状の紙容器が広く使用されているが、近年オーブン、電子レンジ、オーブントースター等の普及に伴ない、調理済或いは未調理の食品類をトレー状容器に充填して販売し、食事に際しては、前述した加熱器中に容器ごと入れ、加熱乃至はクツキングを行い得る容器の開発が望まれている。

このような要望に答えるものとして、特公昭57－41890号公報には、中性近くで紙料調製を行った後、無機填剤を含む水性分散液を浸透させて原紙を抄造し、次いで原紙両面に耐熱性被膜を付着又は貼合形成し、容器の内側となる面に耐熱性樹脂を塗布することから成る食品容器用紙の製造方法が記載されている。また、耐熱性被膜としては、アルミ箔の他に、ニトロセルローズ系ラッカ

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Heat-resistant, moulded paper container - coated with compsn. comprising thermosetting resin binder and hiding pigment

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Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 244179	A	19871104	EP 87303680	A	19870427	198744	B
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ZA 8703026	A	19871028	ZA 873026	A	19870428	198805	
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EP 244179	B				
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Abstract (Basic): EP 244179 A

A heat-resistant paper container comprises a bottomed seamless press-moulded body comprising a laminate of paper substrate having elongation of at least 1.5% in the longitudinal direction and at le 4.5% in the lateral direction, and a coating layer of a hiding pigm on both surfaces of the substrate. The amt. of the pigment coating 1-50 g/sq.m, the binder in the coating layer is a thermosetting res and the wt. ratio (Rp) of binder in the coating layer is given by t equation Rp=K.OA.dR (where OA is the oil absorption (ml/100g) of th pigment, dR is the density of the binder (g/ml) and k=0.005-0.2).

USE/ADVANTAGE - Useful as a food container. Food in the contain can be heated and cooked in a microwave oven, electric oven, or ove toaster. The laminate has good mouldability and appearance, high strength and excellent flavour-retaining properties even when heate over 300 deg.C. Adhesion of the resin to the mould during moulding avoided.

0/9

Abstract (Equivalent): EP 244179 B

A heat-resistant paper container which comprises a bottomed seamless press-moulded body comprising a laminate of a paper substr and a coating layer (12) of a hiding pigment and a binder formed on both the surfaces of the paper substrate, wherein the coated amount the hiding pigment being 1 to 50 g/m2, the laminate having an elongation of at least 1.5% in the longitudinal direction and an elongation of at least 4.5% in the lateral direction as measured at temperature of 200 deg.C and a relative humidity of 65% the binder the coating layer being a thermosetting resin binder having a glass transition point of 90 to 130 deg.C as measured by a scanning calorimeter and the binder being present in the coating layer at a weight ratio Rp satisfying the following condition:

Rp = k.OA.dR

wherein OA stands for the oil absorption (ml/100g) of the hidin pigment, dR stands for the density (g/ml) of the binder, and K is a number of from 0.005 to 0.2. (22pp)o

Abstract (Equivalent): US 5078939 A

Prepn. of heat-resistant containers comprises (a) applying a coating compsn. comprising hiding pigment and a thermosetting resin paint to surfaces of paper substrate and heating to form laminate material. The thermosetting resin has Tg of 90-130 deg.C measured b scanning colorimeter and is in cured coating layer at wt. ratio Rp k.OA.dR. (OA = oil absorption (ml/100g) of hiding pigment; dR = den (g/m) of thermosetting resin, and k = 0.005-0.2).

The laminate has elongation of at least 1.5% in longitudinal direction and at least 4.5% in lateral direction at 20 deg.C, and relative humidity of 65%; and (b) press-moulding the laminate mater into shape of bottomed seamless in mould heated to 50-180 deg.C. Pr thermosetting resin is epoxy-acrylic- or epoxy-vinyl-resin.

USE - Used in heating and cooking by microwave, electric or ove grilling. (12pp)

US 4775560 A

Easily mouldable heat-resistant paper container composed of a p laminate, comprising a bottomed seamless press-moulded body compris a laminate of a paper substrate (I) having an elongation of 1.5% or more longitudinally and 4.5% or more laterally, and a coating layer a hiding pigment (II) on both surfaces of (I) in amt. 1-50 g/m2.

(I) is a paper having a low acidity or a neutral paper, pref. a paper treated with a neutral or weakly acidic sizing agent; and (II comprises TiO2, pref. rutile or anatase-type, in a binder comprisin epoxy-acrylic or epoxy-vinyl thermosetting resin.

USE/ADVANTAGE - Heat-resistant paper container having good mouldability, high strength and good flavour-retainer property even when heated above 300 deg.C. Can be used in microwave oven, electro oven or oven toaster. (12pp)O